

### **REMARKS**

An Excess Claim Fee Payment Letter is attached hereto for an excess dependent claim.

Claims 1-21 are all the claims presently pending in the application. New claim 21 has been added to further define the present invention.

It is noted that the claims have been amended solely to more particularly point out Applicant's invention for the Examiner, and not for distinguishing over the prior art, narrowing the claim in view of the prior art, or for statutory requirements directed to patentability.

It is further noted that, notwithstanding any claim amendments made herein, Applicant's intent is to encompass equivalents of all claim elements, even if amended herein or later during prosecution.

Attached hereto is a marked-up version of the changes made to the claims by the current Amendment. The attached pages are captioned "**Version with markings to show changes made**".

Claims 1-4 and 6-10 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Bowker, et al. (U.S. Patent No. 5,812,252) (hereinafter "Bowker").

Claims 11-12 and 15-20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Sanchez (U.S. Patent No. 5,828,301) (hereinafter "Sanchez").

Claims 5 and 13-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bowker, et al., in view of Sanchez.

These rejections are respectfully traversed in the discussion below.

### **I. THE CLAIMED INVENTION**

Applicant's invention, as defined for example in independent claim 1 (and substantially similarly in independent claims 6, 11, 15 and 20) is directed to an authorization control system for personal use of selected devices. In a non-limiting embodiment, the present invention includes a signal provider for outputting signals representing a personal code data and a signal

receive interface for receiving a signal that is connected to a device which requires proper authorization to use.

A feature of the present invention, in a non-limiting embodiment, is that a signal path between a signal provider and a signal receive interface may include a user's body (e.g. see page 3, lines 8-16; page 5, lines 10-15; and page 6, lines 7-9).

An exemplary configuration of the authorization control system is shown in Fig. 1 of the application.

With such a feature, the novel present invention can provide an optimum control over valuable or dangerous devices (e.g., firearms, etc.).

The conventional systems, such as those discussed below and in the Related Art section of the present application, do not have such a structure, and fail to provide for such an operation.

Indeed, such features are clearly not taught or suggested by the cited references.

## II. THE PRIOR ART REFERENCES

### A. The Bowker Reference

The Examiner asserts that:

*[Re: claims 1-4 and 6-10] Bowker shows the authorization control system for personal use of a device with the specified storage and interface means shown in figures 1, 23, 18, and 20.*

*Capacitive coupling is suggested in col. 2, lines 3137 (sic).*

However, Applicant respectfully disagrees.

Firstly, Bowker describes a specially designed fiber optic prism for fingerprint recognition which is integrated in a weapon to release the firing mechanism only when the fingerprint has been recognized as belonging to an authorized person. Specifically, Bowker

relies upon optical imaging and is not teaching or suggesting an authorization control system in which "a signal path between said signal provider means and said signal receive interface means includes a user's body".

In contrast to the invention, in Bowker light is only being reflected off a body surface (e.g., finger) to provide details of variations (e.g., finger prints) and does not pass through a user's body, as in the claimed invention.

The disadvantages of the fiber optic prism assembly of Bowker are many. First, only very small portions of a fingertip may be scanned which implies deteriorated recognition and refusal of function operation in situations in which the weapon should function. Also, such a design presupposes that an operator's finger is always placed neatly on the scanning device in order that the fingertip can be scanned by the fiber terminations. In practice, this is illusory and a faulty assumption.

Further, like all procedures based on biometry, fingerprint recognition is an imprecise technique. This may be acceptable in non-life threatening circumstances, but in a case where a life may be threatened such imprecision would be unacceptable. This is particularly true if subject fingerprints would need to be correctly identified from among hundreds or even thousands of other fingerprints.

Additionally, in Bowker, a user cannot wear gloves. Further, dirty hands, a newly acquired scar, a wound, blood, a band aid, etc. would all impair proper recognition, endangering the owner of the weapon.

As the Examiner can readily recognize, these conditions are by no means exceptional under realistic operating conditions and could possibly endanger the owner of the weapon.

Further, in a fingerprint or palm print procedure like that of Bowker, an owner or authorized user of a weapon is not identified and is only recognized when he puts his finger around the trigger or at some other appropriate place when it may be too late. In Bowker, time may be lost in a new identification procedure if the finger of a user is moved from a specified position on the gun.

Further, assuming that a gun issued by a police department could be used by multiple

police officers, defining such a hierarchically organized group of users is extremely complicated. For example, supposing that each police officer was allowed the use of the gun of each of his/her colleagues, this would entail storing and continuously maintaining the dynamically changing set of fingerprints and their (e.g., hierarchical) interrelationships of possibly thousands of police officers across all departments of a large city. Thus, in the device of Bowker, such relationships would need to be stored and continuously maintained in each weapon and correctly identified in a fraction of a second.

Also, since many people are able to fire a gun with both hands, the number of fingerprints to be stored and identified would be doubled. Therefore, the costs of maintaining and managing a finger-print system, such as that disclosed in Bowker would be prohibitive.

In sharp and fundamental contrast, the present invention as defined by dependent claim 21, is based on the comparison of two carriers of electronically stored identification information, not a sample of an actual fingerprint. As shown in the non-limiting embodiment of Fig. 1, information from database 10 is compared to information in a data storage unit 25. Such an arrangement provides much greater technical and administrative flexibility than the device of Bowker.

For example, in a non-limiting embodiment of the present invention, the sender and/or the weapon with a GSM receiver may enable a central authority to remotely disable or enable each individual combination of sender and weapon by sending a single encoded instruction via mobile phone. Therefore, in the present invention, a user is able to wear gloves and the signal path between the signal provider and the signal receive interface will not be interrupted. This is not the case in the optical scan device of Bowker, wear gloves would interrupt a reading of an optic scan of a fingerprint.

Also, in the present invention there is no possibility of misidentification or refusal of access because only a portion of a finger or body part is touching a particular site on a device requiring authorization.

Further, as noted above Bowker nowhere teaches or suggests that "a signal path between said signal provider means and said signal receive interface means includes a user's body".

Thus, turning to the clear language of independent claim 1 (and similarly that of

independent claim 6) Bowker fails to teach or suggest "[a]n authorization control system for personal use of a device, comprising:

*storage means for storing personal code data;*

*signal provider means for outputting signals representing said personal code data;*

*signal delivery interface means for receiving signals representing said personal code data, and adapted for wear by a user in proximity to a body of the user;*

*signal receive interface means, connected to the device, for receiving said signal from said signal delivery interface means;*

*a signal processing device, connected to said signal receive interface means, for determining a user's authorization for using the device by evaluating said signals and outputting a signal indicative of an evaluation result;*

*a control device connected to said signal processing device; and*

*an actuator for said device coupled to said control device, for allowing said user to use said device based on an output of said control device,*

*wherein a signal path between said signal provider means and said signal receive interface means includes a user's body"*.

Thus, independent claims 1 and 6 and dependent claims 2-4 and 7-10 are neither anticipated nor for that matter rendered obvious by Bowker.

## **B. The Sanchez Reference**

The Examiner asserts that:

*[Re: claims 11, 12 and 15-20 rejected as allegedly anticipated by Sanchez] See figure 3 for finger ring, and figure 2 for the storage device 100 as well as the CPU.*

*[Re: claims 5, 13, and 14] Sanchez shows the finger ring as illustrated in figure 3. It would have been obvious to one having ordinary skill in the art to input the personal code with a ring finger in the authorization control system of Bowker because the specific use of a ring finger in an authorization control system is*

*clearly suggested by Sanchez.*

*With respect to claim 13, Sanchez provides for time registration and storing device, col. 3, lines 44-50.*

*With respect to claim 14, the recited "car" would not involve patentable invention since a patentee is entitled to all the uses to which his device or circuit may be put. The skilled artisan would recognize that the device of either Bowker or Sanchez may be employed on a car.*

However, Applicant again respectfully disagrees.

Firstly, in Sanchez an electronically activated holster that releasably secures a weapon to the holster is disclosed. A locking mechanism releases the weapon upon receiving an appropriate signal. Specifically, Sanchez discloses that "[a] locking mechanism releases the weapon upon receiving an electrical signal generated when certain conditions are present. These predetermined conditions are selected by a user and these inputs can be sensed with photosensitive devices attached to the holster that detect bar codes on a user's hand or glove so that a predetermined pattern can be read and conveyed....Alternatively, an ultrasonic transmitter can be worn by a user in a wristband and a cooperative receiver on the holster designed to be activated when a predetermined proximity is achieved" (e.g., see Abstract).

Thus, Sanchez (similar to Bowker) is not teaching or suggesting "a signal path between said signal provider means and said signal receive interface means includes a user's body". Instead, bar codes on a user's hand or glove or an ultrasonic radio signal are used to convey a signal.

Further, in the device of Sanchez, there are many disadvantages when compared to the device of the present invention. In particular, the most general and serious disadvantage is that once the weapon has been released there is no more control as to the identity/authority of the person who uses the weapon. For example, if the weapon is taken from a policeman by a criminal in a fight, there is no way of stopping the criminal from using the gun.

Although Sanchez proposes recording holster-related activities such as drawing the weapon and putting it back, there is no disclosure of recording a time period for using the

weapon. In contrast, as defined by dependent claim 13 (and as described on page 10, lines 22-26 and page 11, lines 1-3 of the specification), in the present invention "*said time registration including a range of time in which said user is authorized to operate said device*".

Further, the disadvantages of Sanchez include dirt, blood and other substances interfere with positive recognition, that the bar code (of the transmitter) may not work on both the right hand and the left hand, and the bar code should not be easy to wipe away, but at the same time should be easy to remove. That is in real life people are not permanently bar-coded on their fingers.

Additionally, disadvantages of Sanchez are that the owner of the weapon need to wears glove. This is a disadvantage in that people do not always have their gloves on (e.g., particularly in warmer climates or on warmer days). Further, gloves can become dirty or stained and impair proper recognition.

Also, in Sanchez, a disadvantage is that a reaction time will be longer by the required action of the releasing mechanism. This is also true in the case that another authorized person tries to remove the gun from the holster, possibly under difficult circumstances. That is, time will be lost in moving the bar code or signal transmitter into the required proximity to the holster to release the latch.

Still further, as demonstrated by bar code readers in supermarkets, bar code readers are often unreliable even under favorable circumstances.

Thus, turning to the clear language of independent claim 11 (and similarly that of independent claims 15 and 20) Sanchez fails to teach or suggest "[a] *finger ring for a device authorization control system, comprising:*

*a storage device for storing data, wherein said data comprises personal code data;*  
*a signal provider outputting signals representing said personal code data; and*  
*a signal delivery interface for receiving signals representing said personal code data,*  
*wherein a signal path between said signal provider and said signal delivery interface*  
*includes a user's body,*

*wherein a signal path between said signal provider and said signal delivery interface*  
*includes a user's body*".

Thus, all of claims 11, 12, and 15-20 are neither anticipated nor for that matter rendered obvious by Sanchez.

Further, regarding the §103(a) rejection, claims 5, 13, and 14 when combined with independent claim 1 define additional novel and non-obvious features. That is, even assuming (arguendo) that Bowker were to be combined with Sanchez, claims 5, 13, and 14 would not teach or suggest the limitations of "*a signal path between said signal provider and said signal delivery interface includes a user's body*".

In view of the foregoing, all of claims 1-20 (and new claim 21) are not anticipated nor rendered obvious by Bowker or Sanchez, either alone or in combination.

The other prior art of record has been reviewed but it too, even in combination with Bowker or Sanchez, fails to teach or suggest the claimed invention.

### **III. FORMAL MATTERS AND CONCLUSION**

In view of the foregoing, Applicant submits that claims 1-21, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.



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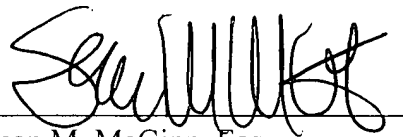
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The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Assignee's Deposit Account No. 50-0510.

Respectfully Submitted,

Date:

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Sean M. McGinn, Esq.

Reg. No. 34,386

**McGinn & Gibb, PLLC**

8321 Old Courthouse Rd. Suite 200

Vienna, VA 22182-3817

(703) 761-4100

**Customer No. 21254**

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE CLAIMS:**

**The claims have been amended as follows:**

1 1. (Amended) An authorization control system for personal use of a device, comprising:  
2 storage means for storing personal code data;  
3 signal provider means for outputting signals representing said personal code data;  
4 signal delivery interface means for receiving signals representing said personal code data,  
5 and adapted for wear by a user in proximity to a body of the user;  
6 signal receive interface means, connected to the device, for receiving said signal from  
7 said signal delivery interface means;  
8 a signal processing device, connected to said signal receive interface means, for  
9 determining a user's authorization for using the device by evaluating said signals and outputting  
10 a signal indicative of an evaluation result;  
11 a control device connected to said signal processing device; and  
12 an actuator for said device coupled to said control device, for allowing said user to use  
13 said device based on an output of said control device,  
14 wherein a signal path between said signal provider means and said signal receive  
15 interface means includes a user's body.

1 6. (Amended) A firearm comprising:  
2 a signal processing device;  
3 signal receive interface means, connected between a signal source external to said firearm  
4 and said signal processing device included in said firearm, wherein said signal processing device  
5 is connected to said signal receive interface means for delivering an output signal;  
6 a controlling device connected to said signal processing device; and  
7 an actuator for said firearm, connected to said controlling device, for selectively

8 inhibiting the firing of the firearm based upon an output signal from said controlling device,  
9 wherein a signal path between said signal receive interface means and said signal  
10 processing device includes a user's body.

1 11. (Amended) A finger ring for a device authorization control system, comprising:  
2 a storage device for storing data, wherein said data comprises personal code data;  
3 a signal provider outputting signals representing said personal code data; and  
4 a signal delivery interface for receiving signals representing said personal code data,  
5 wherein a signal path between said signal provider and said signal delivery interface  
6 includes a user's body.

13. (Amended) The authorization control system as claimed in claim 1, wherein said signal  
processing device comprises a time registration and storing device, said time registration  
including a range of time in which said user is authorized to operate said device.

1 15. (Amended) An authorization control system for personal use of a device, comprising:  
2 a storage device for storing personal code data;  
3 a signal provider for outputting signals representing said personal code data;  
4 a signal delivery interface for receiving signals representing said personal code data, and  
5 adapted for wear by a user in proximity to a body of the user;  
6 a signal receive interface, connected to the device, for receiving said signal from said  
7 signal delivery interface;  
8 a signal processing device, connected to said signal receive interface, for determining a  
9 user's authorization for using the device by evaluating said signals and outputting a signal  
10 indicative of an evaluation result;  
11 a control device connected to said signal processing device; and  
12 an actuator for said device coupled to said control device, for allowing said user to use  
13 said device based on an output of said control device,  
14 wherein a signal path between said signal provider and said signal delivery interface

15 • includes a user's body.

1 20. (Amended) A firearm comprising:

2 a signal processing device;

3 a signal receive interface, connected between a signal source external to said firearm and

4 said signal processing device included in said firearm, wherein said signal processing device is

5 connected to said signal receive interface for delivering an output signal;

6 a controlling device connected to said signal processing device; and

7 an actuator for said firearm, connected to said controlling device, for selectively

8 inhibiting the firing of the firearm based upon an output signal from said controlling device,

9 wherein a signal path between said signal source and said signal processing device

10 includes a user's body.